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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,265	08/27/2001	Eric Gregory Oettinger	TI-32926	6270

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EXAMINER

TRAN, DZUNG D

ART UNIT	PAPER NUMBER
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2633

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/942,265	Applicant(s) OETTINGER ET AL.	
	Examiner Dzung D Tran	Art Unit 2633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 15-20 is/are rejected.
- 7) ☒ Claim(s) 11-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/25/2002</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “a light beam steering device **coupled to** the light beam transmitter; a light beam orientation detector **coupled to** the light beam transmitter and the light beam steering device; a memory **coupled to** the light beam orientation detector; control circuit **coupled to** the photodetector and the light beam steering device” in claims 11-14 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will

be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-10 and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wissinger US patent no. 5,592,320 in view of Javitt et al. US patent no. 6,381,055.

Regarding claims 1 and 15, Wissinger discloses a method for acquiring alignment of an optical wireless device (LCT A, LCT B of figure 1, col. 2, lines 4-5), the optical wireless device (LCT A, LCT B) transmitting information over a light beam, the method comprising:

a first transmitter generates and modulates a signal indicative of the position of its scanning light beam into its output beam, thereby providing position data for the first light beam (col. 6, lines 49-52);

sweeping the first light beam and second light beam through a pre-defined re-acquisition pattern (col. 2, lines 23-25, 29-31); and

periodically transmitting position information over the light beam during the sweeping step (col. 2, lines 35-40, col. 4, lines 27-38). Wissinger differs from claimed invention in that Wissinger does not specifically disclose detecting a disruption of reception of an information transmitting light beam, when the light beam is at a first alignment position and positioning the light beam to the last known good alignment position. Javitt discloses a method and apparatus for alignment and re-alignment the optical communication when misalignment due to intermittent mechanical slippage and loss of position data is detected (col. 2, lines 29-31, 43-47) and preferably that some positional information is provided to the unmated searching assembly before it begins scanning (same as claimed positioning the light beam to the last known good alignment position), see col. 6, lines 13-18, col. 10, lines 24-33. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to include the teaching of Javitt in the apparatus of Wissinger. One of ordinary skill in the art would have been motivated to do this order to start the scanning over a good position, thus it decreases the searching time.

Regarding claims 3 and 4, Wissinger discloses the first light beam transmits a default value for position data for the second light beam and vice versa so that the LCT A and/or LCT B positioning the light beam to the default alignment position (col. 6, lines 43-62).

Regarding claim 5, Wissinger discloses the last known good alignment position comprises x and y coordinate values (col. 3, lines 30-35, col. 3, line 53 to col. 4, line 20, col. 5, lines 25-37).

Regarding claim 6, Javitt discloses the last known good alignment position comprises radius and angle information (col. 7, lines 21-23).

Regarding claim 7, Wissinger discloses the last known good alignment position comprises a time stamp (i.e. code indicating time it was hit, col. 3, lines 48-52).

Regarding claims 8 and 10, Wissinger discloses at least one of said first and second re-acquisition patterns is an expanding spiral (col. 4, lines 24-25, col. 5, lines 40-45).

Regarding claim 9, Wissinger discloses the optical wireless device has a field of view (FOV) and the first pre-defined re-acquisition pattern covers a limited portion of the field of view (FOV) and the second pre-defined re-acquisition pattern covers substantially the full field of view (col. 3, lines 18-41).

Regarding claims 2, 16 and 18, Wissinger discloses the sweeping time period (i.e. 30 milliseconds; col. 4, lines 31-38), he does not specifically disclose the waiting time after detecting the loss of alignment prior to positioning the light beam to the last known good alignment position. However, whether to start the alignment procedure right after detecting the loss of alignment or waiting for a period of time then start the alignment procedure after detecting the loss of alignment is merely an engineering design choice.

Regarding claim 17, Wissinger discloses LTC A, LTC B encode the time and position information and transmits to each other in every 30 milliseconds (col. 4, lines 5-38).

Regarding claim 19, Wissinger discloses the position data is coded and transmitted to each ends (LCT A, LCT B) (col. 3, lines 53-55).

Regarding claim 20, Wissinger discloses transmitting data between the first and second optical wireless devices (see figure 2, data from Host through laser modulator 42 to laser diode 26)

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Pond et al. U.S. patent no. 4,401,886. Electromagnetic beam acquisition and tracking system
- b. Diehl et al. U.S. patent no. 4,676,455. Guide beam and tracking system

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung D Tran whose telephone number is (571) 272-3025. The examiner can normally be reached on 9:00 AM - 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2633

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DT
09/30/2004


M. R. SEDIGHIAN
PRIMARY EXAMINER